

1. (Amended) A developer carrying member comprising:

a substrate;[,] and

a conductive coat layer that covers a [the] surface of the substrate,

wherein[;] said conductive coat layer contains at least a binder resin and conductive spherical particles having a number average particle diameter of from 0.3 μm to 30 μm and a true density of 3 g/cm^3 or below, dispersed in the binder resin.

7. (Amended) The developer carrying member according to claim 6, wherein [the] surfaces of said carbon particles are coated with a conductive metal or a conductive metal oxide, or both [of them].

10. (Amended) The developer carrying member according to claim 1, wherein said conductive coat layer [spherical particles] further contains [contain] a lubricating material in addition to said conductive spherical particles.

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~~16.~~ (Amended) The developer carrying member according to claim ¹⁷~~15~~, wherein said conductive fine particles comprise [comprises] at least one member selected from the group consisting of carbon black, a metal oxide, a metal and an inorganic filler.

~~22.~~¹⁹ (Amended) The developer carrying member according to claim ~~15~~¹⁷, wherein said conductive fine particles are contained in the conductive coat layer in an amount of from 2 parts by weight to 35 parts by weight [to 100 parts by weight] based on 100 parts by weight of said binder resin.

23. (Amended) The developer carrying member according to claim 1, wherein a [the] surface of said conductive coat layer has a center-line average height Ra of from 0.2 μm to 4.5 μm .

24. (Amended) The developer carrying member according to claim 1, wherein a [the] surface of said conductive coat layer has a center-line average height Ra of from 0.4 μm to 3.5 μm .

~~25.~~²⁶ (Amended) A developing assembly comprising:
a developer container holding a developer; and
a developer carrying member for carrying the developer held in said [the] developer container and for transporting the developer to a [the] developing zone, [;]
wherein said developer carrying member comprises a substrate, and a conductive coat layer that covers a [the] surface of the substrate, and wherein the conductive coat layer contains at least a binder resin and conductive spherical particles having a number average particle diameter

of from 0.3 μm to 30 μm and a true density of 3 g/cm³ or below, dispersed in the binder resin.

26. (Amended) The developing assembly according to claim 25, [which] further comprising [comprises] a developer layer thickness control member for forming a thin layer of the developer on said developer carrying member.

34. (Amended) An image forming apparatus comprising:

a latent image bearing member for bearing an electrostatic latent image; and

a developing assembly for developing the electrostatic latent image to form a developed image; said developing assembly comprising:

a developer container holding a developer; and

a developer carrying member for carrying the developer held in said [the] developer container and for transporting the developer to a [the] developing zone;

wherein said developer carrying member comprises a substrate, and a conductive coat layer that covers a [the] surface of the substrate, and wherein the conductive coat layer contains at least a binder resin and conductive spherical particles having a number average particle diameter of from 0.3 μm to 30 μm and a true density of 3 g/cm³ or below, dispersed in the binder resin.

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35. (Amended) The image forming apparatus according to claim ⁵⁶34, [which] further comprising [comprises] a developer layer thickness control member for forming a thin layer of the developer on said developer carrying member.

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43. (Amended) The image forming apparatus according to claim ⁶²34, [which] further comprising [comprises] a) transfer means for transferring said developed image to a recording medium.

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44. (Amended) The image forming apparatus according to claim ⁶²34, [which] further comprising [comprises] a) fixing means for fixing said developed image to a recording medium.

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45. (Amended) A process cartridge detachably mountable on a main assembly of an image forming apparatus, said process cartridge comprising:

a latent image bearing member for bearing an electrostatic latent image; and [, and a]

developing means for developing the electrostatic latent image, and said developing means comprising: [;]

a developer; and

a developer carrying member for carrying and transporting the developer to a [the] developing zone, and

wherein said developer carrying member comprises a substrate, and a conductive coat layer that

covers a [the] surface of the substrate, and the conductive coat layer contains at least a binder resin and conductive spherical particles having a number average particle diameter of from 0.3 μm to 30 μm and a true density of 3 g/cm^3 or below, dispersed in the binder resin.

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47. (Amended) The process cartridge according to claim 46, [which] further comprising [comprises] a developer layer thickness control member for forming a thin layer of the developer on said developer carrying member.

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55. (Amended) The process cartridge according to claim 46, [which] further comprising [comprises] at least one of [a] cleaning means and [a] primary charging means, joined into one unit as said process [the] cartridge in addition to said latent image bearing member, [and said primary charging member;] said latent image bearing member comprising an electrophotographic photosensitive member.

[Please add Claims 57-125, as follows:

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57. The developing assembly according to claim 25, wherein said conductive spherical particles have a number average particle diameter of from 2 μm to 20 μm .

~~37~~
~~58.~~ The developing assembly according to claim ~~25,~~ ²⁶
wherein said conductive spherical particles have a true
density of from 0.9 g/cm^3 to 2.7 g/cm^3 .

~~38~~
~~59.~~ The developing assembly according to claim ~~25,~~ ²⁶
wherein said conductive spherical particles have a major
axis/minor axis ratio in the range of from 1.0 to 1.5.

~~39~~
~~60.~~ The developing assembly according to claim ~~25,~~ ²⁶
wherein said conductive spherical particles have a volume
resistivity of $10^6 \Omega \cdot \text{cm}$ or below.

all
~~40~~
~~61.~~ The developing assembly according to claim ~~25,~~ ²⁶
wherein said conductive spherical particles comprise carbon
particles.

~~41~~
~~62.~~ The developing assembly according to claim ~~61,~~ ⁴⁰
wherein surfaces of said carbon particles are coated with a
conductive metal or a conductive metal oxide, or both.

~~42~~
~~63.~~ The developing assembly according to claim ~~25,~~ ²⁶
wherein said conductive spherical particles comprise
particles whose surfaces have been subjected to conductive
treatment.

⁴³
~~64.~~ The developing assembly according to claim ²⁶~~25~~,
wherein said conductive spherical particles comprise resin
particles with conductive fine particles dispersed therein.

⁴⁴
~~65.~~ The developing assembly according to claim ²⁶~~25~~,
wherein said conductive coat layer further contains a
lubricating material in addition to said conductive spherical
particles.

⁴⁵
~~66.~~ The developing assembly according to claim ⁴⁴~~65~~,
wherein said lubricating material comprises a member selected
from the group consisting of graphite, molybdenum disulfide,
boron nitride, mica, graphite fluoride, silver-niobium
selenide, calcium chloride-graphite, talc, and a fatty acid
metal salt.

⁴⁶
~~67.~~ The developing assembly according to claim ⁴⁴~~65~~,
wherein said lubricating material has a number average
particle diameter of from 0.2 μm to 20 μm .

⁴⁷
~~68.~~ The developing assembly according to claim ⁴⁴~~65~~,
wherein said lubricating material is contained in the
conductive coat layer in an amount of from 5 parts by weight
to 120 parts by weight based on 100 parts by weight of said
binder resin.

~~48~~
~~48~~. The developing assembly according to claim ~~47~~
~~47~~,
wherein said lubricating material is contained in the
conductive coat layer in an amount of from 10 parts by weight
to 100 parts by weight based on 100 parts by weight of said
binder resin.

~~49~~
~~49~~. The developing assembly according to claim ~~26~~
~~26~~,
wherein said conductive coat layer has a volume resistivity
of $10^3 \Omega \cdot \text{cm}$ or below.

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~~50~~
~~50~~. The developing assembly according to claim ~~26~~
~~26~~,
wherein said conductive coat layer has a volume resistivity
of from $10^3 \Omega \cdot \text{cm}$ to $10^{-2} \Omega \cdot \text{cm}$.

~~51~~
~~51~~. The developing assembly according to claim ~~26~~
~~26~~,
wherein said conductive coat layer further contains
conductive fine particles in addition to said conductive
spherical particles.

~~52~~
~~52~~. The developing assembly according to claim ~~52~~
~~52~~,
wherein said conductive fine particles comprise at least one
member selected from the group consisting of carbon black,
a metal oxide, a metal and an inorganic filler.

✓ ~~53~~
~~53~~. The developing assembly according to claim ~~52~~
~~52~~,
wherein said conductive fine particles are contained in the

conductive coat layer in an amount not more than 40 parts by weight based on 100 parts by weight of said binder resin.

⁵⁴
~~25~~. The developing assembly according to claim ⁵⁵~~22~~, wherein said conductive fine particles are contained in the conductive coat layer in an amount of from 2 parts by weight to 35 parts by weight based on 100 parts by weight of said binder resin.

⁵⁵
~~26~~. The developing assembly according to claim ²⁶~~25~~, wherein said conductive spherical particles are contained in the conductive coat layer in an amount of from 2 parts by weight to 120 parts by weight based on 100 parts by weight of said binder resin.

⁵⁶
~~27~~. The developing assembly according to claim ²⁶~~25~~, wherein said conductive spherical particles are contained in the conductive coat layer in an amount of from 2 parts by weight to 80 parts by weight based on 100 parts by weight of said binder resin.

⁵⁷
~~28~~. The developing assembly according to claim ²⁶~~25~~, wherein a surface of said conductive coat layer has a center-line average height Ra of from 0.2 μm to 4.5 μm .

⁵⁸
~~25~~. The developing assembly according to claim ²⁶~~25~~, wherein a surface of said conductive coat layer has a center-line average height Ra of from 0.4 μm to 3.5 μm .

⁷⁵
⁶²~~34~~. An image forming apparatus according to claim ~~34~~, wherein said conductive spherical particles have a number average particle diameter of from 2 μm to 20 μm .

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⁶²~~34~~. An image forming apparatus according to claim ~~34~~, wherein said conductive spherical particles have a true density of from 0.9 g/cm³ to 2.7 g/cm³.

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⁶²~~34~~. An image forming apparatus according to claim ~~34~~, wherein said conductive spherical particles have a major axis/minor axis ratio in the range of from 1.0 to 1.5.

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⁶²~~34~~. An image forming apparatus according to claim ~~34~~, wherein said conductive spherical particles have a volume resistivity of 10⁶ $\Omega\cdot\text{cm}$ or below.

⁷⁹
⁶²~~34~~. An image forming apparatus according to claim ~~34~~, wherein said conductive spherical particles comprise carbon particles.

⁸⁰
⁷⁹~~34~~. An image forming apparatus according to claim ~~34~~, wherein surfaces of said carbon particles are

coated with a conductive metal or a conductive metal oxide,
or both.

⁸¹
⁶² 86. An image forming apparatus according to
claim ~~34~~, wherein said conductive spherical particles
comprise particles whose surfaces have been subjected to
conductive treatment.

⁸²
⁶² 87. An image forming apparatus according to
claim ~~34~~, wherein said conductive spherical particles
comprise resin particles with conductive fine particles
dispersed therein.

⁸³
⁶² 88. An image forming apparatus according to
claim ~~34~~, wherein said conductive coat layer further contains
a lubricating material in addition to said conductive
spherical particles.

⁸⁴
⁸³ 89. An image forming apparatus according to
claim ~~88~~, wherein said lubricating material comprises a
member selected from the group consisting of graphite,
molybdenum disulfide, boron nitride, mica, graphite fluoride,
silver-niobium selenide, calcium chloride-graphite, talc, and
a fatty acid metal salt.

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83 90. An image forming apparatus according to
claim 88, wherein said lubricating material has a number
average particle diameter of from 0.2 μm to 20 μm .

86
83 91. An image forming apparatus according to
claim 88, wherein said lubricating material is contained in
the conductive coat layer in an amount of from 5 parts by
weight to 120 parts by weight based on 100 parts by weight of
said binder resin.

87
83 92. An image forming apparatus according to
claim 88, wherein said lubricating material is contained in
the conductive coat layer in an amount of from 10 parts by
weight to 100 parts by weight based on 100 parts by weight of
said binder resin.

88
62 93. An image forming apparatus according to
claim 88, wherein said conductive coat layer has a volume
resistivity of $10^3 \Omega \cdot \text{cm}$ or below.

89
62 94. An image forming apparatus according to
claim 88, wherein said conductive coat layer has a volume
resistivity of from $10^3 \Omega \cdot \text{cm}$ to $10^{-2} \Omega \cdot \text{cm}$.

90
62 95. An image forming apparatus according to
claim 88, wherein said conductive coat layer further contains

conductive fine particles in addition to said conductive spherical particles.

⁹⁰~~90~~ ⁹¹~~91~~ 96. An image forming apparatus according to claim ~~95~~, wherein said conductive fine particles comprise at least one member selected from the group consisting of carbon black, a metal oxide, a metal and an inorganic filler.

⁹²~~92~~ ⁹³~~93~~ 97. An image forming apparatus according to claim ~~95~~, wherein said conductive fine particles are contained in the conductive coat layer in an amount not more than 40 parts by weight based on 100 parts by weight of said binder resin.

⁹⁴~~94~~ ⁹⁵~~95~~ 98. An image forming apparatus according to claim ~~95~~, wherein said conductive fine particles are contained in the conductive coat layer in an amount of from 2 parts by weight to 35 parts by weight based on 100 parts by weight of said binder resin.

⁹⁶~~96~~ ⁹⁷~~97~~ 99. An image forming apparatus according to claim ~~95~~, wherein said conductive spherical particles are contained in the conductive coat layer in an amount of from 2 parts by weight to 120 parts by weight based on 100 parts by weight of said binder resin.

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62 100. An image forming apparatus according to claim 34, wherein said conductive spherical particles are contained in the conductive coat layer in an amount of from 2 parts by weight to 80 parts by weight based on 100 parts by weight of said binder resin.

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62 101. An image forming apparatus according to claim 34, wherein a surface of said conductive coat layer has a center-line average height Ra of from 0.2 μm to 4.5 μm .

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62 102. An image forming apparatus according to claim 34, wherein a surface of said conductive coat layer has a center-line average height Ra of from 0.4 μm to 3.5 μm .

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103. A process cartridge according to claim 100, wherein said conductive spherical particles have a number average particle diameter of from 2 μm to 20 μm .

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104. A process cartridge according to claim 103, wherein said conductive spherical particles have a true density of from 0.9 g/cm³ to 2.7 g/cm³.

104
105. A process cartridge according to claim 104, wherein said conductive spherical particles have a major axis/minor axis ratio in the range of from 1.0 to 1.5.

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~~106~~. A process cartridge according to claim ~~46~~,^{100b}
wherein said conductive spherical particles have a volume
resistivity of $10^6 \Omega \cdot \text{cm}$ or below.

106b
~~107~~. A process cartridge according to claim ~~46~~,¹⁰¹
wherein said conductive spherical particles comprise carbon
particles.

107
~~108~~. A process cartridge according to claim ~~107~~,^{101b}
wherein surfaces of said carbon particles are coated with a
conductive metal or a conductive metal oxide, or both.

all
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~~109~~. A process cartridge according to claim ~~46~~,¹⁰¹
wherein said conductive spherical particles comprise
particles whose surfaces have been subjected to conductive
treatment.

109
~~110~~. A process cartridge according to claim ~~46~~,¹⁰¹
wherein said conductive spherical particles comprise resin
particles with conductive fine particles dispersed therein.

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~~111~~. A process cartridge according to claim ~~46~~,¹⁰¹
wherein said conductive coat layer further contains a
lubricating material in addition to said conductive spherical
particles.

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~~122.~~ A process cartridge according to claim ~~111~~,
wherein said lubricating material comprises a member selected
from the group consisting of graphite, molybdenum disulfide,
boron nitride, mica, graphite fluoride, silver-niobium
selenide, calcium chloride-graphite, talc, and a fatty acid
metal salt.

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~~123.~~ A process cartridge according to claim ~~111~~,
wherein said lubricating material has a number average
particle diameter of from 0.2 μm to 20 μm .

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120

~~124.~~ A process cartridge according to claim ~~111~~,
wherein said lubricating material is contained in the
conductive coat layer in an amount of from 5 parts by weight
to 120 parts by weight based on 100 parts by weight of said
binder resin.

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120

~~125.~~ A process cartridge according to claim ~~111~~,
wherein said lubricating material is contained in the
conductive coat layer in an amount of from 10 parts by weight
to 100 parts by weight based on 100 parts by weight of said
binder resin.

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100

~~126.~~ A process cartridge according to claim ~~111~~,
wherein said conductive coat layer has a volume resistivity
of $10^3 \Omega \cdot \text{cm}$ or below.

¹²⁶
~~117.~~ A process cartridge according to claim ~~117~~,¹⁰⁶
wherein said conductive coat layer has a volume resistivity
of from $10^3 \Omega \cdot \text{cm}$ to $10^{-2} \Omega \cdot \text{cm}$.

¹²⁵⁷
~~118.~~ A process cartridge according to claim ~~118~~,¹⁰⁶
wherein said conductive coat layer further contains
conductive fine particles in addition to said conductive
spherical particles.

¹²⁸
~~119.~~ A process cartridge according to claim ~~118~~,¹²⁹
wherein said conductive fine particles comprise at least one
member selected from the group consisting of carbon black, a
metal oxide, a metal and an inorganic filler.

¹²⁹
~~120.~~ A process cartridge according to claim ~~118~~,¹²⁵⁷
wherein said conductive fine particles are contained in the
conductive coat layer in an amount not more than 40 parts by
weight based on 100 parts by weight of said binder resin.


¹³⁰
~~121.~~ A process cartridge according to claim ~~118~~,¹²⁵⁷
wherein said conductive fine particles are contained in the
conductive coat layer in an amount of from 2 parts by weight
to 35 parts by weight based on 100 parts by weight of said
binder resin.

¹³¹
~~122.~~ A process cartridge according to claim ~~118~~,¹⁰⁶
wherein said conductive spherical particles are contained in

the conductive coat layer in an amount of from 2 parts by weight to 120 parts by weight based on 100 parts by weight of said binder resin.

¹³²
~~123~~. A process cartridge according to claim ⁴⁰¹~~46~~, wherein said conductive spherical particles are contained in the conductive coat layer in an amount of from 2 parts by weight to 80 parts by weight based on 100 parts by weight of said binder resin.

¹³³
~~124~~. A process cartridge according to claim ⁴⁰¹~~46~~, wherein a surface of said conductive coat layer has a center-line average height Ra of from 0.2 μm to 4.5 μm .

¹³⁴
~~125~~. A process cartridge according to claim ⁴⁰¹~~46~~, wherein a surface of said conductive coat layer has a center-line average height Ra of from 0.4 μm to 3.5 μm . 

REMARKS

Applicants request favorable reconsideration and allowance of the above-identified application in view of the preceding amendments and the following remarks.

Claims 1-32, 34-44, 46-55, and 57-125 are pending in the application, with Claims 1, 25, 34, and 46 being independent. Claims 1, 7, 10, 16, 22-26, 34, 35, 43, 44, 46, 47, and 55 have been amended, while Claims 57-125 are newly